Sundance wastewater plant renovations on tap

With continued growth on the horizon, Water Resources is working hard to ensure wastewater treatment capacity keeps up with demand.

The Sundance Water Reclamation Facility (SWRF) is in the final design stages of an overhaul that would see the plant's two original sequencing batch reactor (SBR) units refurbished and modernized.

Originally built in 2002 with just two 550,000 gallon SBR tanks, the plant underwent a major expansion in 2008 when four additional underground SBRs were added, bringing the facility's total treatment capacity to 3.4 million gallons a day (MGD).

With the increase in capacity, the original units were taken offline and over time began to experience structural and maintenance issues.

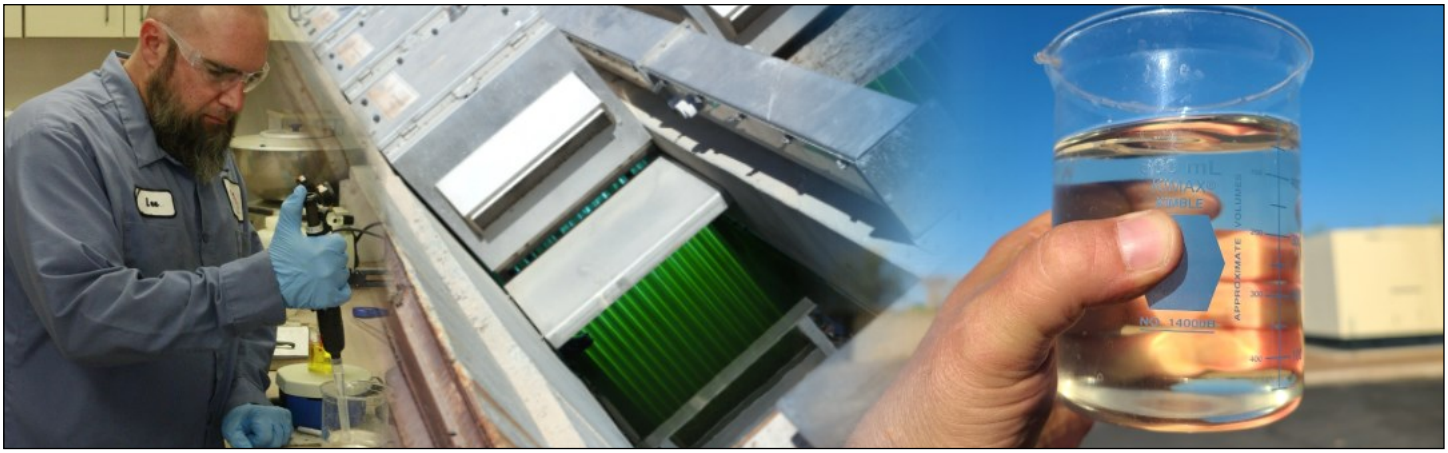
In March of 2020, Wood Environmental and Infrastructure Solutions was contracted to complete an assessment and develop a repair and replacement plan. The proposed renovations will bring them up to current industry standards, modernizing the equipment and adding in redundancy to enhance reliability.

The plant is currently operating with just the four expansion SBRs rated at 2.3 MGD. Recent flow increases are now pushing the site's capacity. Sundance is currently treating nearly 2 MGD and is projected to reach capacity in just one to two years.

Water Resources will apply for a loan to fund the project through the Water Infrastructure Finance Authority of Arizona (WIFA) for up to $13 million at the organization's August board meeting. WIFA issues loans at a lower interest rate than traditional municipal loans, resulting in significant savings for water customers over the life of the loan.

Council voted to support the loan application at their May 18 meeting. If WIFA approves the loan, Council will have to approve the terms of the loan, likely in September.

Work would be completed in fiscal year 2021-2022.



From left to right: *Lee Robinson, Operator I at Sundance, performs daily sample testing. Ultraviolet bulbs disinfect effluent in the final stage of treatment. Sundance's effluent is then either discharged into the Roosevelt Irrigation District Canal to be used for crop and landscape irrigation, or sent to Sundance Golf Course where it's used for irrigation. The final product is class A+ effluent .*

Transfer switch maintenance highlights proactive approach

When the lights go out, the water has to keep flowing. Even during power outages, residents depend on having access to clean, safe, reliable drinking water.

To ensure uninterrupted service, the water production, distribution, and treatment systems rely on power backup systems to maintain continuous operations during outages.

A key component is each site's automatic transfer switch (ATS), which acts as the brains of the electrical system, monitoring the flow of power.

When a power outage is detected, it automatically switches the entire system over to a backup generator. However like all mechanical equipment, ATS can fail.

Alisha Solano, Water Resources Director, and Mark Seamans, Water Resources Manager, survey the Festival Ranch water facility.

To prevent unplanned interruptions in service, the ATS at both the Tartesso and Festival Ranch water systems were recently serviced.

The complex work involved tying in a temporary generator mounted on a flatbed trailer so the entire facility could be completely removed from the electric grid without any interruption in service.

Rocky Mountain Cummins services all ATS system wide on a five-year maintenance cycle. During inspection each ATS is exercised and examined, looking for signs of future mechanical failure.

While residents aren't typically aware of this type of preventative maintenance, the program demonstrates Water Resources' commitment to safeguard system reliability.

"We wanted to take this opportunity to thank you for taking my recent call regarding a sewer manhole cover that was loose and making loud noise as cars drive over it in our neighborhood. I received a call from Mike Mason to indicate that this would be attended to immediately and indeed, he took care of it right away. Thank you both so much for the prompt service, it is much appreciated and certainly more quiet now. It is rare these days to receive same day service and we greatly appreciate your consideration. Stay safe and keep up the great work."

—The Johnsons

"I just want to COMMEND the City of Buckeye on setting up the Vacation Hold for trash - I was so pleasantly surprised to find how totally EASY it was to put our trash on hold. THANK YOU."

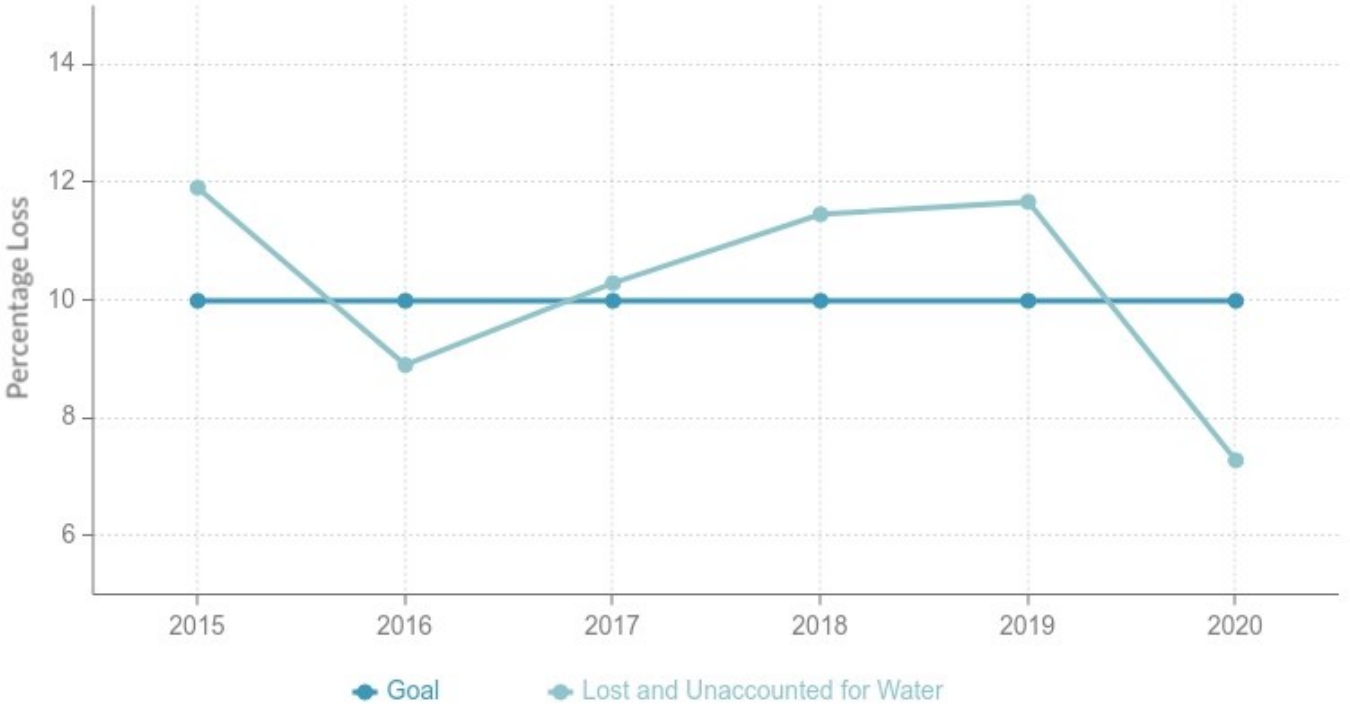
— Georgia Cline

Lost and Unaccounted for Water 2015-2020

Combating lost and unaccounted for water (L&U) is a top priority. By implementing a comprehensive action plan in 2020, Water Resources has been able to meet our goal of staying below 10 percent.

Lost and unaccounted for water is the difference between the quantity of water fed into a distribution system and the quantity of water put to legitimate use, which has been metered or can be estimated.

There are a variety of causes for L&U. Buckeye's aging water infrastructure has grown prone to physical leaks, which are difficult to detect and repair. Water theft from hydrants, as well as meter tampering, result in unbilled water usage and are also significant issues.



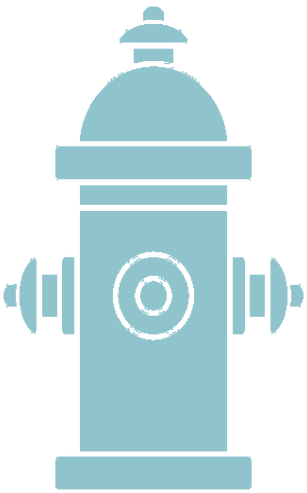
Hydrant inspections underway

It can literally mean life and death. With more than 3,000 fire hydrants in the city of Buckeye, keeping them in good working order is crucial for public safety.

Water Resources recently embarked on hydrant inspections after being alerted to 88 suspect hydrants by the Buckeye Fire Department.

Each hydrant will undergo a thorough inspection, looking for leakage, damage, or other operational issues.

To date, 15 of the 88 hydrants have been inspected with the remainder to be finished before the end of the fiscal year.



Buckeye Water Festival educates 4th graders

The annual Project WET (Water Education for Teachers) Buckeye Water Festival was held virtually this year on May 4, 2021.

The city of Buckeye Water Resources and Public Work Departments partnered with the University of Arizona Cooperative Extension program to provide a unique educational experience to five local teachers and more than 125 fourth-graders.

The Buckeye Water Festival instills a deeper understanding of water in the Earth system and Arizona's water resources.

The program includes teacher professional development; lesson plans; festival modules on groundwater, watersheds, the water cycle and water conservation technology; and a celebration of learning with water professionals and community volunteers.

A special thank you to Amy Murray, Environmental Compliance Office, for the collaboration and educating the kids on the importance of responsible trash and recycling habits, bulk trash practices, hazardous waste collection, and how to help prevent environmental pollution and to Craig Lynch, city of Goodyear Stormwater Supervisor, for educating the kids on the importance of proper stromwater practices.